







DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Comparison of Current Requirements to 2010 CALGreen Mandatory Requirements Effective January 1, 2011

Item		Current Requirement	2010  Requirement
DIVISION 4.1 – PLANNING AND DESIGN			
	Storm water management and retention during construction	Currently the SWRCB has regulations which govern storm water management during construction on sites more than one acre.	Section 4.106.2 applies to construction projects less than one acre which are outside the scope of the California State Water Resources Control Board (SWRCB). Requires a method to be specified. This section will help prevent flooding of adjacent property and prevent pollution from storm water runoff by retaining soil on-site or by providing filtering to restrict sedimentation from reaching storm water drainage systems and receiving streams or rivers. Examples are given.
	Surface drainage	Basic requirement that surface water must flow away from the building, but no specific requirement or documentation is required.	Section 4.106.3 specifies that surface drainage must be planned. Drainage patterns must be analyzed and a method developed to manage site and building drainage. Some examples of measures which could be used are included. The method and management of surface water on the site must be identified and included in the construction documents.
DIVISION 4.2 - ENERGY EFFICIENCY			
	Energy Efficiency	Regulated by the California Energy Code	Section 4.201.1 clarifies that the California Energy Commission (CEC) adopts regulations to establish the minimum level of energy efficiency a structure that is heated or cooled must meet or exceed.
DIVISION 4.3 - WATER EFFICIENCY AND CONSERVATION			
	Indoor water use	HCD currently adopts maximum flush rates for toilets and the California Energy Commission (CEC) adopts appliance standards which limit water use of appliances and fixtures.	<p>Section 4.303.1 reduces indoor water use by at least 20%. The code provides a prescriptive and a performance method to meet the requirements.</p> <p>Prescriptive: Showerheads ≤ 2.0 gpm @ 80psi Lavatory Faucets ≤ 1.5 gpm @ 60psi Kitchen Faucets ≤ 1.8 gpm @ 60psi Water Closets ≤ 1.28 gal/flush¹ Urinals $\leq .5$ gal/flush</p> <p>Performance: Perform a calculation to show a 20% reduction using the worksheets provided in Chapter 8.</p> <p>¹Includes dual flush toilets with an effective flush volume of 1.28 gallons or less. The effective flush volume is the average volume of two reduced flushes and one full flush.</p>
	Multiple showerheads	Not covered.	Section 4.303.2 clarifies multiple showerheads would not be allowed to exceed the required 20% indoor water use reduction. The flow of multiple showerheads must be combined and the sum of those combined flow rates cannot exceed the maximum showerhead flow rate specified in the code.
	Irrigation Controllers	Not covered.	Section 4.304.1 requires that irrigation controllers which are installed at the time of final inspection must be weather- or soil moisture-based controllers capable of delaying an irrigation cycle during wet weather.



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DIVISION 4.4 - MATERIAL CONSERVATION & RESOURCE EFFICIENCY

	Joint or opening protection	The plumbing code and mechanical code cover some penetrations.	Section 4.406.1 requires covering and sealing of openings to prevent the passage of rodents. It is different from the CEC requirements used to restrict infiltration and exfiltration between conditioned and unconditioned space. This condition is prevalent at cuts in wall plates for plumbing piping and is most often filled with insulation which does not deter rodents. This section requires openings to be sealed with materials which cannot be penetrated by rodents.
	Construction waste reduction	May be covered by some local ordinances.	Sections 4.408.1, 4.408.2, 4.408.2.1, 4.408.2.2 require the use of a local jurisdiction's waste management plan when available or to establish a waste management plan for the diversion of waste during construction. This section includes a list of waste reduction methods that must be included in the plan. Additionally, this section establishes a requirement to recycle and/or salvage for reuse a minimum of 50% of nonhazardous construction waste or demolition debris. This section also requires documentation of compliance with the plan to be provided. Sample forms and worksheets which may be used to show compliance are provided in Chapter 8.
	Operation and maintenance manual	The plumbing code requires manuals for graywater systems to be available to inspectors and to remain with the property.	Section 4.410.1 requires that educational materials, operation and maintenance manuals and other important information are provided to occupants and owners to ensure buildings and equipment are properly maintained.


DIVISION 4.5 - ENVIRONMENTAL QUALITY

	Fireplaces	May be covered by some local ordinances.	Section 4.503.1 requires that any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with local ordinances.
	Covering of ductwork and mechanical equipment	Not covered.	Section 4.504.1 requires that duct openings, permanent mechanical equipment and other related ventilation components that will be used to move air in the building after occupancy be protected from contamination during construction. Contaminants can reduce the efficiency of the space conditioning equipment and contribute to poor air quality.
	VOC limits	Not covered on a statewide basis. A couple of local air boards have VOC limits which primarily target outdoor air.	Sections 4.504.2 through 4.504.5 and the related tables establish limits for VOC emissions in adhesives, paints, sealants and other coatings. The VOC limitations also include carpet, carpet cushions and carpet pad adhesives. A table addressing formaldehyde limits for trim and other finish materials is also provided. VOC emissions for these products must also be verified. HCD will provide a sample form for tracking these values.
	Capillary break	Current requirement does not provide a prescriptive method of compliance.	Section 4.505.2.1 provides explicit requirements for the installation of vapor barriers in slab on grade foundations and specifies an aggregate base of ½" or larger material must be used as a capillary break. The section also clarifies that the vapor barrier must be placed above the aggregate and in direct contact with the concrete slab. This proposal also will allow equivalent methods to be used provided the same protections will be maintained. This section will reduce moisture and mold issues that can negatively affect indoor air quality as well as damage floor coverings.




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DIVISION 4.5 - ENVIRONMENTAL QUALITY (Continued)

	Moisture content	Depending on the type of materials, mill moisture levels range between 15% and 20% and do not address storage or construction during wet weather.	Section 4.505.3 requires moisture content to be verified prior to enclosure of a wall or floor cavity which can lead to the growth of mold or other biological growth by requiring the moisture content of construction materials and insulation to be verified prior to approval to enclose wall and floor cavities with drywall or other finish surfaces. The section also provides instruction on where the readings are to be taken.
	Whole house fans	Not covered	Section 4.507.1 requires whole house fans to have insulated louvers or covers which close when the fan is off. The minimum required insulation value is R-4.2.
	Bath exhaust fans	Not covered.	Section 4.506.1 requires fans to be ENERGY STAR compliant and be controlled by a humidistat.
	Heating and cooling system design	Currently minimal requirements for heat loss and heat gain and duct systems are required.	Section 4.507.2 requires that calculations for the entire system must be provided and also allows the designer to use alternative design temperatures if the published values do not accurately reflect the temperatures in the region. In addition, HCD is proposing an exception to allow latitude to use appropriate design temperatures that accurately reflect the design needs of buildings instead of relying on broad based climate information that may not be accurate for a specific area.

CHAPTER 7 - INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

	Installer and inspector qualifications	Currently there is no requirement that HVAC installers be trained.	Section 702.1 requires installers of HVAC systems to be trained or certified. Guidance is provided to give examples of training that may be acceptable.
	Special inspector qualifications	Only covered for structural material inspections.	Section 702.2 requires third party inspectors to be trained in the areas they inspect. Guidance is provided to provide examples of training that may be acceptable.